

WHAT IS CLAIMED IS:

1. A balloon inflation device of the type comprising a syringe comprising a syringe body and a syringe piston slidably and rotatably displaceable in said syringe body, the piston presenting an outside thread over at least a fraction of its length, the device further comprising a retaining mechanism for retaining the piston and comprising, firstly at least one half-nut movable between a position where it is spaced apart from the thread, and in which the piston is free to slide in the syringe body, and a position where it engages the thread, in which free sliding of the piston is impossible, and in which the piston can be screwed into or out from the syringe body, and secondly, for each half-nut, a control member for controlling the displacement of the corresponding half-nut between its two positions, said member being movably mounted relative to the syringe body, wherein the retaining mechanism comprises, for each half-nut, at least one elastically-deformable element pressing against the corresponding half-nut and against the syringe body, and wherein the control member comprises a finger bearing against the corresponding half-nut and adapted, during displacement of the control member, to bear against two surfaces carried by the half-nut and offset from each other in a radial direction of the syringe body, the half-nut being in its position spaced apart from the thread when the finger bears against the surface that is radially closer to the syringe piston, and the half-nut being in its position engaged with the thread when the finger is pressed against the surface that is further away.

2. A device according to claim 1, wherein the deformable element is secured to the corresponding half-nut.

3. A device according to claim 1, wherein the deformable element is a resilient tab which extends substantially

parallel to the longitudinal direction of the syringe body.

5 4. A device according to claim 1, wherein, for the or each half-nut there are provided two deformable elements disposed on either side of the half-nut in the longitudinal direction of the syringe body.

10 5. A device according to claim 1, wherein the or each half-nut presents a transition surface passing between the two surfaces against which the corresponding finger presses, said transition surface forming a cam for said finger.

15 6. A device according to claim 1, wherein said surface further away from the syringe piston is provided with a projection suitable for blocking the finger pressed against said surface.

20 7. A device according to claim 1, wherein the control member for the or each half-nut is mounted to tilt about an axis perpendicular to the longitudinal direction of the syringe body.

25 8. A device according to claim 1, wherein the or each control member is received in a housing secured to the syringe body and having said control member movably mounted thereto.

30 9. A device according to claim 1, wherein the or each half-nut comprises a hollow body for receiving a portion of the corresponding finger, which hollow body comprises a bottom wall carrying said two surfaces against which the finger presses, and side walls forming surfaces for
35 guiding the finger during its displacements relative to the syringe body.

10. A device according to claim 1, wherein the retaining
mechanism for retaining the syringe piston comprises only
one half-nut, and wherein the device further comprises a
rigid handle integrally molded with the syringe body and
5 situated diametrically opposite the control member for
the sole half-nut.